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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,248	10/03/2003	Kevin Zatloukal	BEAS-01469US0	2015

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EXAMINER

KENDALL, CHUCK O

ART UNIT	PAPER NUMBER
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2192

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/678,248

Applicant(s)

ZATLOUKAL ET AL.

Examiner

Chuck O. Kendall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to Application filed 12/27/2006.
2. Claims 1 – 36 have been examined.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1 – 6, 10 – 16, 20 – 25 and 29 – 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Chan et al. US 2003/0028364 A1.

Regarding claims 1, 10 and 29, Chan anticipates a method/system for code completion, comprising:

providing a representation of a first program in a first programming language
(See L1, L2 and L3, and E1, E2, and E3 and also see represents file [0015]);
establishing a location in the first program ([0016], see position in buffer);
associating the location with a representation of the first program ([0016],
position mappings);

obtaining code completion information relevant to the location in the first program based on the representation of the first program (see, "automatic completion of the source code generation"); and

wherein the obtaining occurs at the behest of an extensible compiler framework (see standard IDE and Framework [0015]).

Regarding claims 2 and 30, the method of claim 1 wherein:

the location in the first program is one of:

1) a textual offset ([0013, see position in text]);

2) a structural navigation through a parse tree (see [0046], for parse tree also refer to [0013] through [0014] for scanning/ (i.e. navigation));

3) at least one semantic entity in the first program ([0025] see syntax); and

4) a token or token range [0032].

Regarding claims 3 and 31, the method of claim 1 wherein:

the representation of the first program is a parse tree (see [0046], for parse tree).

Regarding claims 4 and 32, the method of claim 3 wherein:

the code completion information is based on information related to a node in the parse tree [0015].

Regarding claims 5 and 33, the method of claim 1 wherein:

the code completion information includes at least one of:

1) a class name and/or definition; 2) a type name and/or definition; 3) a field/member/variable name and/or definition; 4) a method name and/or definition; and

5) a function name and/or definition ([0015], see java base classes and parameter names for at least one of the items in 1 – 5);

Regarding claims 6 and 34, the method of claim 1, further comprising:
analyzing the syntactic structure of a first program in a first programming language, wherein the first program can be represented by a first set of tokens ([0026], see syntax highlighting and structure analysis).

Regarding claim 11, the system version of claim 1, see rationale as previously disclosed above.

Regarding claim 12, the system version of claim 2, see rationale as previously disclosed above.

Regarding claim 13, the system version of claim 3, see rationale as previously disclosed above.

Regarding claim 14, the system version of claim 4, see rationale as previously disclosed above.

Regarding claim 15, the system version of claim 5, see rationale as previously disclosed above.

Regarding claim 16, the system version of claim 6, see rationale as previously disclosed above.

Regarding claim 20, the machine readable medium version of claim 1, see rationale as previously disclosed above.

Regarding claim 21, the machine readable medium version of claim 2, see rationale as previously disclosed above.

Regarding claim 22, the machine readable medium version of claim 3, see rationale as previously disclosed above.

Regarding claim 23, the machine readable medium version of claim 4, see rationale as previously disclosed above.

Regarding claim 24, the machine readable medium version of claim 5, see rationale as previously disclosed above.

Regarding claim 25, the machine readable medium version of claim 6, see rationale as previously disclosed above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 – 9, 17 – 19, 26 – 29, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. US 2003/0028364 A1 in view of Katson US 2004/0268301

Regarding claims 7, 17, and 26 Chan discloses all the claimed limitations as applied in claim 1 above. Chan doesn't expressly disclose wherein the extensible

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compiler framework can integrate and interact with compilers for different programming languages through a common interface.

However, Katson in an analogous art and similar configuration discloses interfacing a plurality of compilers targeted from to different programming languages (0022). Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to combine Chan and Katson because, it would enable writing programs currently supported by the framework or programs that would be added to the framework (Katson,0022).

Regarding claims 8,18, 27and 35, Chan discloses all the claimed limitations as applied in claim 1 above. Chan doesn't expressly disclose wherein the first program in the first programming language can be nested within a second program in a second programming language.

However, Katson teaches embedding files generated by one of the compilers into the java byte code, which are executed on a JVM (0021). Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to combine Chan and Katson because, it would executing the programming language on a wide range of computers (Katson, 0021).

Regarding claims 9,19, 28 and 36, the method/system/machine readable medium of claim 1 wherein:

a second program in a second programming language is nested within the first program in the first programming language (Katson, 0021).

Response to Arguments

7. Previous rejection has been withdrawn, however Applicant's arguments with respect to claims 1 – 36 have been considered but are moot in view of the new ground(s) of rejection.

Correspondence information

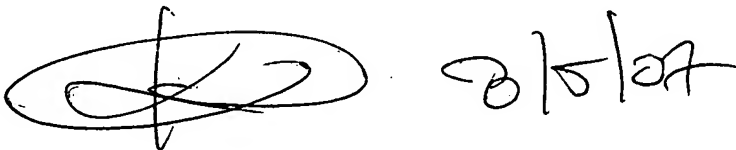
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Kendall whose telephone number is 571-272-3698. The examiner can normally be reached on 10:00 am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ck.

Handwritten signature and date. The signature is a stylized, cursive mark enclosed in an oval. To its right is the date "8/5/07" written in a cursive script.